Marian Valentine
Hydrology & Hydraulics Section
Seattle District Corps of Engineers

8 October 2002

Regional Forum: Water Quality Team Meeting

***PROPOSED* SCOPE for Ad Hoc Committee to examine generation/spill swap for Grand Coulee and Chief Joseph dams in the absence of flow deflectors.**

PURPOSE: An interim measure to reduce TDG input to Rufus Woods Lake.

STUDY TASKS:

1) Determine the water quality benefit of the spill/generation swap. This was determined using March - June 1997 data for the GRR. Do we want to revisit this analysis? use a different set of data? If so, the team will need someone to run SYSTDG or develop some other way to predict TDG.

2) Determine measurement points for comparing TDG. In the GRR, I chose to use a mixed river condition below Coulee and below Chief Joseph for consistency's sake. This compares total loading into the river. If it is decided to continue using FMS, then there is no point in pursuing the study and we should continue as we currently apply the spill priority program. The team needs clear direction from the WQT about this. Perhaps a biologist needs to be on the team to identify impacts of high TDG on one side of the river.....compared, of course, with the benefit of lower TDG in Rufus Woods. Perhaps someone from CCT should also be on the team. I think that this is a significant unresolved issue.

3) Determine how to apply the TDG standard at Chief Joseph. Again, would it be a mixed river condition? If the FMS remains the only point of concern, than there is no point in pursuing the study. Would Chief Joseph have a waiver different than the rest of the river? Dave Z. suggested looking at it from a spill cap and spill priority standpoint, as well as TDG loading to the river. This could be the largest unresolved issue.

4) Determine system capacity for implementing this swap. An ad hoc committee did this a year ago. Do you want to revisit that analysis? Can the Bureau and BPA say for sure that they COULD implement this swap? Are there any unresolved issues about transmission or generation constraints at Coulee?

5) Determine the conditions under which this swap would be implemented. Some questions have been raised about whether to implement when Coulee's drum gates are usable. I think implementation when only the outlet tubes are usable is pretty clear. The drum gates deserve another look. A small flow over the drum gates probably has no water quality impact at all. In fact, if Coulee's forebay is highly saturated, a small flow over the drum gates could have a water quality benefit. These finer details need someone to run SYSTDG or develop some other way to predict TDG.

6) Does the WQT have any other issues they would like the ad hoc committee to answer?

***PROPOSED* STUDY TEAM:**

- Bureau rep for Coulee
- Corps rep for Chief Joseph: Kent Easthouse
- Corps RCC rep for how to implement real-time within spill priority framework
- Biologist, probably NMFS or State or CCT, for TDG impacts to fish below Chief Joseph in Lake Pateros
- Biologist, probably CCT or State or USFWS, for TDG impacts to fish above Chief Joseph in Rufus Woods Lake
- Ecology rep for how to apply TDG standard and waiver
- BPA rep for transmission/generation issues
- Study lead, non-Corps, who is none of the above, for note-taking and dissemination of minutes. Discussions will occur that require documentation.